

ADOLESCENT FRIENDLY HEALTH SERVICES

**AN IMPACT MODEL TO EVALUATE THEIR
EFFECTIVENESS AND COST**

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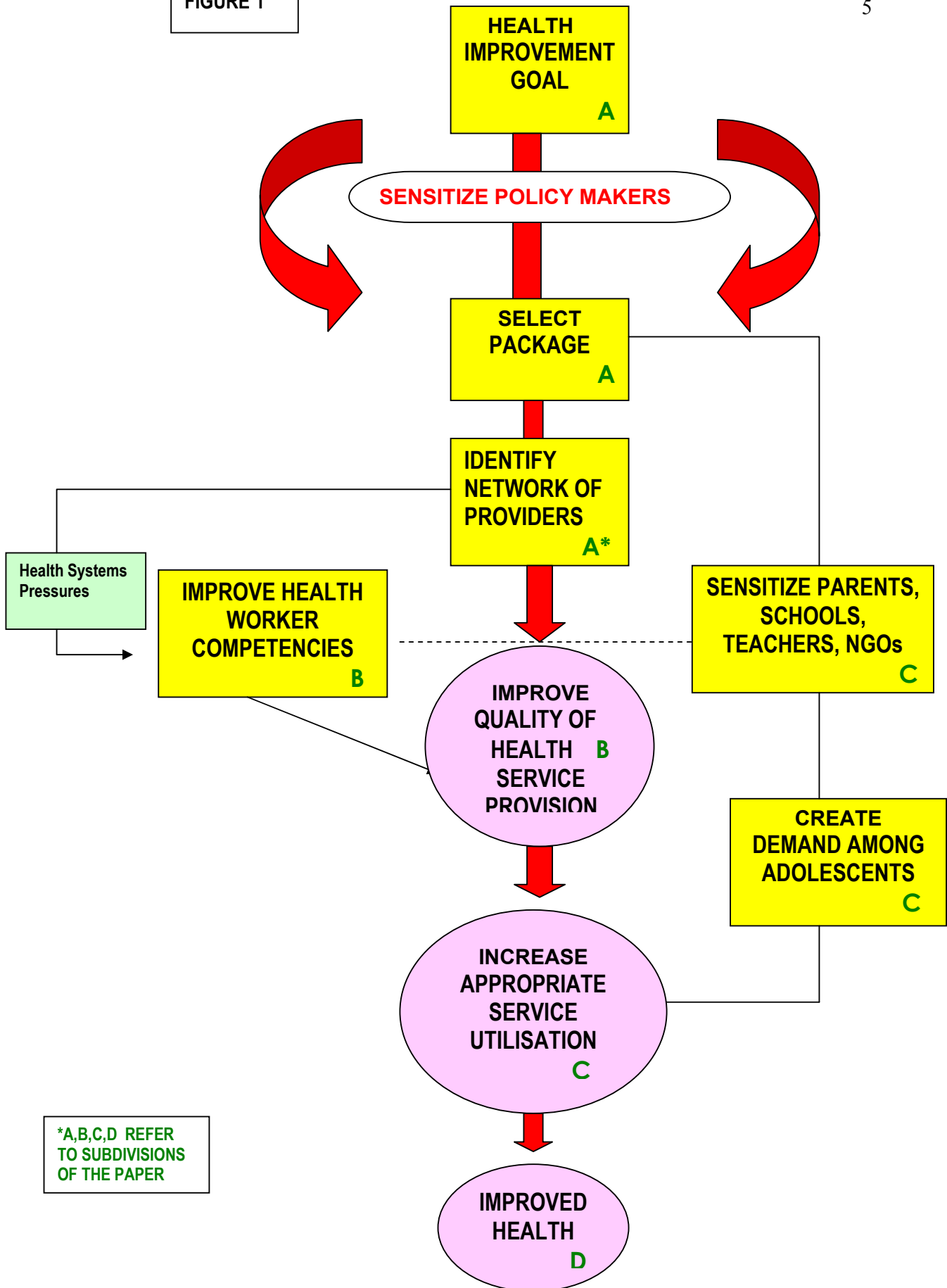
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INTRODUCTION

- The Global Consultation on Adolescent Friendly Health Services (AFHS) was convened in 2001 and reviewed evidence of best practice on health service provision for adolescents in developing and developed countries. The global consultation on AFHS brought together representatives from UN agencies, bilateral agencies and international NGOs, who are involved in this area of work. It also included representatives from over 20 countries – from government and non governmental sectors – who were actively involved in providing health services to adolescents. The rationale for the consultation was that there were many players supporting country level work in this area, a lot of reinvention and duplication was occurring, and there was a *real need for the development of a shared understanding* in the area, based on hard evidence and the experiences of front-line workers.
- In the lead up to the consultation, an extensive review of the published and unpublished literature was carried out. It examined the provision and utilisation of health services, from the points of view of the key stakeholders involved – adolescents, their families and communities, health care providers, and managers and planners in the health sector. The review found some evidence of effectiveness of approaches that are being employed to improve the friendliness of health services for adolescents, though it must be said that in many cases this was from small projects. There was acknowledgement that there was sufficient practical experience on which to derive principles for service provision and that these principles were generalisable across cultures. Over a 3 day period, the participants worked together to develop 10 consensus statements that were based on their own ideas and experiences and those of others. Annex 1 contains a list of consensus statements emanating from the consultation.
- In line with the recommendations of the Global Consultation, the Department of Child and Adolescent Health and Development (CAH) at WHO is pushing ahead with work in two areas: firstly, the development of resources to advocate for concerted action in this area, and to support country level action, and secondly, to improve gaps in knowledge and understanding of programme implementation through operations research. This meeting was convened to address this second area of work.
- One of the key consensus statements to emerge from the consultation was that WHO should not recommend one package of health services to adolescents all over the world. Participants noted that the needs and problems of adolescents are likely to be influenced by the epidemiological, social and cultural context of their lives and also that within the same setting, adolescents are a heterogeneous group, with differing and changing needs and problems. In line with this, participants noted that WHO should take the lead in developing a process for countries to define and deliver one or more packages of health services tailored to the prevailing realities, and relating to their priorities.

- The fundamental aim of any AFHS initiative is to improve the health of its intended beneficiaries, by making it easier for them to obtain the health services they need; and alongside this to ensure that the health services themselves are delivered in a “technically sound” manner. Hence a research agenda for AFHS should answer questions on both the provision and utilisation of services, and should demonstrate that the net effect is improved health at an appropriate cost for countries with different levels of resources.
- The concept of defining a core package of health services for adolescents is one worth considering seriously. A package suggests a set of effective and complementary interventions – such as those incorporated into the Integrated Management of Childhood Illness (IMCI) programme, or into the Integrated Management of Pregnancy and Childbirth (MPAC). A similar programme for adolescents is highly desirable as adolescence is a time of opportunity and risk, and timely interventions have the potential to significantly reduce the burden of both current (during adolescence) and future (during adulthood) morbidity and mortality. A comprehensive adolescent – oriented preventive programme would, ideally, address issues such as growth and development, nutrition and exercise, mental health, substance use, and sexual health. It would recognise the different maturation stages through which adolescents progress, and accommodate the different needs of male and female adolescents, and young and older ones. Yet for some of these issues, very few interventions have been defined and tested in non-western countries, and to do this is a research priority.
- Many countries face high rates of disease and/or too early pregnancies and a major question at hand is whether AFHS can deliver health interventions that reduce these rates. There are existing health interventions for some of these health problems, which facilitates their immediate incorporation into a package. For instance, there is good reason to believe that the provisions of information, condoms and the management of sexually transmitted infections could make a useful contribution to reducing the sexual transmission of HIV infection.
- In line with this there is sound reason for encouraging countries to define and deliver a package of health interventions with proven effectiveness, in a user friendly manner, to reduce adolescent morbidity and mortality.
- Alongside this, research is needed to study the effectiveness and feasibility of providing other health interventions that adolescents need, thereby building the evidence base for further action.
- To facilitate definition of an operational research agenda a schematic model, which draws on the experiences of the Impact Model used to study the effectiveness and cost of IMCI, has been developed to summarise delivery and impact of the health package (see Figure 1). The framework is useful as a basis for formulating appropriate questions and establishing a rationale for evaluation and systematic appraisal. In this paper, sections of each stage of the Impact Model equate to a section of the analysis.

FIGURE 1



- The framework also serves another function. In many countries, government bodies and non government organisations, have begun to implement AFHS without a clear sense of why they are doing this, how this relates to the functioning of the broader health system, and also, how it will be sustained. A framework is required for systematic and comparative appraisal of projects as a basis for expansion. The usefulness of the suggested framework was assessed during a visit to a CAH-supported AFHS initiative. It helped to focus on key questions such as :
 - What set of health services is this organisation aiming to deliver and why? (i.e. the underlying aim of the organisation, and the health services actually delivered)
 - Does it need to network with other service providers to do this?
 - Do the staff have the knowledge and skills to deliver each of the health services and are there systems in place to provide them with ongoing support to do this? Do they have the supplies and equipment they need to deliver each of the health services (clinical quality of the service)
 - Are adolescents using it? If not, why not?
 - Is it making, or likely to make, a significant impact on improving relevant health outcomes? If not, why not?

Addressing these questions led to recommendations for focusing direction of service development and inclusion of outcome indicators for assessing its success.

- During a two-day WHO Ad Hoc Consultation at the University of Manchester, UK the framework served as the basis for discussion of a research agenda for AFHS:

Purpose of the Advisory Group Meeting

1. To agree on the main research questions that should be addressed to improve gaps in our collective knowledge and understanding of programmatic issues related to the provision of health services to adolescents.
2. To create a shared understanding of the research issues that the organisations present are addressing, to enable WHO (and specifically CAH) to identify in what way it could add to (and add value to) what is already being done.

This meeting focused on the delivery of services within the health sector. Complementary actions by other players and other sectors – such as in education, social welfare, youth affairs etc. - are needed to address the underlying problems which prevent adolescents from achieving their full potential. However, initiatives to improve the provision of health services could serve as a catalyst for complementary actions. Networking of services, as described in the model, is an important step in this direction.

A. SELECTING THE PACKAGE

(Sections marked in Figure 1)

As discussed in the introductory section, the global consultation on AFHS provides the rationale for introducing packages of health services that are tailored to the needs and problems of intended users.

1. DEFINING NATIONAL PUBLIC HEALTH PRIORITIES IN RELATION TO ADOLESCENTS.

We need to persuade National Governments to support the provision of tailor made packages of health services to adolescents

- 1.1. Policy makers must be aware of the value of providing adolescents with a package of health services that will address their needs and problems.
- 1.2. This includes being willing to facilitate its acceptance through policy statements and programmatic action. As part of this, review and reformulation of some laws and policies may be needed. WHO has partly addressed this by publishing a document titled “AFHS. An Agenda For Change”. The research strategy proposed in this document will feed into, and strengthen, this advocacy work. **It is assumed** that advocacy by WHO and other agencies will generate the political commitment that is needed for governments to address the issue of health service provision to adolescents.
- 1.3. Some of the factors to be considered in selecting the health services to be part of this package would be:
 - estimates of the burden of morbidity and mortality among the population as a whole, and the share of this burden that falls on adolescents; also unhealthy practices adopted during adolescence which could result in morbidity and mortality later in life.
 - the feasibility and cost of the recommended interventions (especially in the context of going to scale).
 - the provision of health services as part of other initiatives to address the problems and need identified (e.g. national programmes that address HIV/AIDS, but are not focused on any particular age segment).

Some needs assessment exercises might be carried out. The period of time required for this is, in WHO’s experience, around three months. Since the concept of providing adolescents with a package of health services is a new one, Health Ministries may prefer that this is piloted to assess feasibility, cost and potential impact.

The health package selected could address a single issue of national public health importance such as HIV/AIDS or malaria. Several other issues might also be addressed to achieve a more broadly defined health target - such as reduced levels of anaemia or improved reproductive health. Promotive and preventive health

information and services that do not relate to one specific health problem may also constitute a package. National committees will need to decide on the health issues to be tackled and politically support actions at various levels, aimed at ensuring that this is translated into reality.

2. ESTABLISHING A NETWORK OF SERVICE PROVIDERS

Implementation will be effected at lower levels of the health system, at which level, assessment of existing providers would follow with a view to strengthening local networks, encouraging collaboration between existing programmes (e.g. vertical programmes, schools and NGO programmes) and linking to non-health resources (e.g. social welfare). Sensitisation of local communities and involvement of adolescents will also be essential.

We need to know how to select, recruit and sustain organisations within a network

2.1. **The assumption is** that a network (or inter-agency work) will extend the service base through referral between services provided in the public, private and charitable sectors, and within each sector, between the providers of different health and social services. The main aim is to ensure that working together, the network is able to make available, all the services that adolescents need. A secondary aim is to provide the same services in different settings and to enable them to choose the providers they find most suitable/convenient. That agencies can achieve this goal was shown in demonstration projects for delivery of HIV/AIDS adolescent services funded by the Special Projects of National Significance Program in the USA (Huba & Melchior, 1998). These 10 demonstration projects differed markedly from one another, but a key element in all was that interventions were supplemented with referral to ancillary services such as social services that provided food and shelter, substance abuse programmes, mental health therapy and self-help or support groups. In most cases the programmes offered a continuum of services which were designed to be linked, co-operative, complementary and easy for the young people to access. This was viewed as “active case management”, led to a better informed service system and encouraged young people to adhere to the recommendations they received. The experience may be difficult to achieve but “joined-up services” is also the goal of the UK Government’s strategy to reduce the high rate of teenage pregnancies (Social Exclusion Unit, 1999).

2.2. In selecting organisations **we assume that** district health staff are aware of private and charitable providers in their locality. Recommendations should relate to current adolescent health seeking behaviours (see section 3) to ensure that service providers are acceptable to adolescents. Some young people are willing to pay for private services for reasons of confidentiality (Senderowitz, 1999). Research in Kenya showed that private providers who self-selected to join a voucher scheme for provider reimbursement, were largely the same ones that adolescents also identified as adolescent friendly in a survey of health seeking behaviour (unpublished, Senderowitz and Stevens, 2001). Hence identification of suitable partners for the network may not be difficult.

2.3. Service autonomy can be lost within a network, therefore service providers need to be convinced of the benefits of participation (Senderowitz and Stevens, 2001). **We assume that** benefits to this mode of operation can be demonstrated.

2.3.1. In Kenya private practitioners participated in a voucher scheme because they were interested in receiving training and subsidies. The main benefits for the private sector are usually related to increased profits or to the charitable image that their involvement engenders. By joining the network private-for-profit practitioners will probably hope to receive training, enhance their reputations and hence increase the number of fee-paying clients.

2.3.2. Non-governmental organisations (NGOs) delivering Family Planning and Reproductive Health Services face different issues. Though pioneers in the field, nevertheless their strategic role in family planning services has sometimes declined as the role of the public sector increased (e.g. Rutgers Dutch Family Planning Association) (Cromer & McCarthy 1999). NGOs are often contracted by governments to provide services in key locations, and partnerships between NGOs and public services are generally encouraged (e.g. Brook and National Health Service Family Planning services in the UK). In developing countries adolescent health services provided by NGOs may be under-utilised which raises questions of long term funding. Being part of, and helping to promote, a successful network may therefore be attractive to NGOs.

2.3.3. Small NGOs are heavily reliant on donor funds and donor objectives. Their financial stability might be improved if they facilitated an essential, specific component of a network (e.g. care of orphans, crisis counselling). Their high risk adolescent clients may also benefit as a result of better links for general health care provision.

2.3.4. Public health care providers should feel reassured to know that they are not expected to provide all services for every adolescent. For both the public sector and NGOs, the potential for referral to private practice for services which they and the public sector cannot provide (e.g. laboratory tests, complicated cases) may be attractive.

2.3.5. The benefits of such a network to adolescent clients should be demonstrable. In principle, if the network functions well, adolescents will have more points of entry, some choice over the service provider, options for referral and expectations of quality across the service. Listening to young people's views about providers is essential.

2.3.6. The network may work best if local partners decide who does what best and "specialise", so that there are clear roles for service providers. Benefits might be specified in relation to performance of those roles.

3. DETERMINING THE RELEVANT TARGET GROUP AND CONTACT RATE FOR THE SELECTED PACKAGE

3.1. DETERMINING THE DELIVERY MODEL

It is important to distinguish models of service delivery which aim to reach all adolescents with a package of health services (which are essentially promotive) and those which aim to reach sub-sets of adolescents with specific preventive and curative services.

We need to know what we want the package to achieve

3.1.1. The US guidelines (GAPS) recommend that adolescents make an annual visit to the health provider, at which time the provider should assess 33 areas of health (Elster and Kuznets, 1994):

Weight, BP, cholesterol, immunisations, diet, body image, exercise, sleep, teeth, seatbelt, bike helmet, fighting, violence, weapons, cigarettes, chewing tobacco, alcohol, drugs, steroids, use of over-the-counter drugs, sex, sexual orientation, birth control, condoms, HIV, STDs, friends, school, family, future plans, suicide, abuse, confidentiality.

The guidelines recommend giving preventive messages on psycho-social, nutritional, disease prevention and sexual aspects of health. If required vaccination, screening or “treatment” might ensue. This is a comprehensive approach and the target group is all adolescents who are re-assessed on an annual basis, and provided with information/interventions appropriate to their maturational stage. This, in effect, constitutes a programme of care. Studies suggest that, in the USA, preventive adolescent health is cost-effective (Gans et al., 1995). **We assume** that only some aspects of the American model might be adapted for use in developing countries but that more relevant models will need to be developed and tested.

3.1.2. It is recognised that one of the constraints of the GAP recommendations is the time available to health care providers. In the USA it was found that the questionnaire developed by the American Medical Association for comprehensive screening of the adolescent client was long. Time allotted for health counselling might be increased if a briefer screening procedure were available for identifying high risk adolescents. In one study discriminant analysis was used to develop a short health screen based on a comparison between a school population (normal risk) and samples of high risk adolescent populations in substance abuse programmes, correctional institutions, and young people with behavioural and emotional problems (Harrison et al., 2001). Discriminant analysis is a statistical technique used to identify items which significantly discriminate a criterion group from a comparison group. The researchers identified 25/117 items that could form the basis of a short screen.

A brief screening questionnaire may save time at the point of service delivery but does not reduce the competency base required by the health worker. Adolescents identified as high risk must then undergo comprehensive assessment and counselling.

3.1.3. The aim of screening for high risk adolescents is to deal with fewer adolescents by giving more time to those with the greatest problems, including recalling them more often. There are examples of short screening instruments developed for groups such as young people with a problem of substance abuse, which could be adapted (Knight et al, 1999). High risk clients are more likely to need programmes of care, including long term treatment. In packages with an HIV/AIDS component, voluntary HIV testing and counselling might be offered selectively to high risk clients rather than offered routinely. Programmes of care may be required to monitor undernourished adolescents or those with mental health problems, whose progress should be regularly reviewed.

3.1.4. In contrast to the American approach, a national programme to deliver youth friendly services in South Africa (NAFCI) does not require adolescents to attend for regular general health screening. Instead, it relies on motivating adolescents with a sexual and reproductive health need (including obtaining preventive services/products such as condoms and contraceptives) to attend facilities through a national media campaign (LoveLife). Comprehensive assessment and case management of sexual and reproductive health problems are instituted when an adolescent comes to the clinic for reproductive health services. Assessment embraces pregnancy, substance use, violence and abuse, RTI/HIV care and mental health. Evaluations of the health provider's training programmes and patient management are not yet available.

3.1.5. Another possible approach would be to have different programmes for older children/young adolescents and older adolescents. From the age of 6 years on, children have little systematic contact with health services, though they may receive some interventions through schools. Some kind of "bridging" programme for children – either from six years of age, or from early puberty might be considered. These children will generally be dependent for health care on adults, and a programme that links the health worker to parent and maturing child could facilitate sensitisation of parent and adolescent to issues of pubertal growth, sexual maturation and adolescent sexual health needs. It would familiarise the child with the adolescent nurse and make it easier at puberty for the adolescent to attend unaccompanied.

3.1.6. WHO is working towards an Integrated Management of Adult and Adolescent Illness approach (i.e. as for children, adolescents have been shown to have some clustering of health problems and problem behaviours that could be addressed at a health visit). In the context of child health there is some evidence that this approach is effective (JHPIEGO, 2001) but this would need to be evaluated for adolescents. It should also be noted that this is different from the comprehensive screening protocols used in some other adolescent packages.

3.1.7. In summary, there are several approaches to defining the target group of adolescents (and other scenarios are possible):

- a preventive programme for all adolescents (regular visits)
(an option within this is screening for those at higher risk)
- a selected programme of prevention and care (e.g. to improve reproductive health) with a comprehensive screen for all related conditions

- screening of older children/young adolescents (involving parents), followed by sexual and reproductive health programmes for older adolescents.

The stages, information needs and research questions relating to selection of the package are summarised in Table 1 below.

Table 1: DELIVERY OF THE PACKAGE		
Desired Outcomes	What do we need to know?	Research aims
1. Selection of key services to address the priority needs and problems of adolescents	1. What are the main health problems? What are the problem behaviours which could lead to health problems in later life? What is the objective of the package?	1. To review the process of component selection at national level and translation into action through existing vertical and horizontal programmes
2. Identification of service providers to participate in the network	2. How should adolescent friendly providers be selected? What are the conditions for effective inter-agency working?	2. To assess the implementation of a network To identify the benefits to service providers and adolescents of a network of service providers
3. A package design that is consistent with the health outcome specified	3. Does the desired health outcome require a programme of visits? Does it require focusing on a particular group of adolescents?	3. To determine optimal contact rates according to programme and target group

B. IMPROVING THE QUALITY OF HEALTH SERVICE PROVISION

(Sections marked B in Figure 1)

4.1. DEFINING THE ROLE AND THE REQUIRED COMPETENCIES OF THE HEALTH WORKER

The health worker fulfils a variety of roles and can promote adolescent health through a number of different channels.

We need to know how to select and train health workers to carry forward the adolescent health agenda.

4.1.1. All health workers should be taught the basic principles and practices of working with adolescents as part of their pre-service training. Nevertheless, some will be more attracted to working with adolescents than others and could receive additional training, and be given additional responsibilities. Having developed selection procedures, the additional training could raise issues of specialisation and certification.

4.1.2. Community health workers can play an important role as change agents, especially within their own communities. Community health workers required to promote adolescent health with parents, schools and in the community at large will need additional knowledge and skills. This will require training and ongoing support.

4.1.3. Some health workers will be able to attract and engage adolescents to become involved in issues such as mobilisation of their peers and community sensitisation. They will need additional knowledge and skills to enable them to manage and supervise adolescents.

4.1.4. Nurses who win the confidence of adolescents may be confronted by a range of adolescent's personal problems. Health worker training must be useful and equip them to deal with emotional and social issues (including legal and ethical ones), in addition to clinical issues.

4.1.5. Developing the role of the health worker in relation to adolescents is a new challenge and information on how to select, train and provide them with ongoing support is required. The views of health workers themselves should also inform training programmes.

4.2. INITIATING QUALITY IMPROVEMENT

Although the components of the package are likely to vary, a consistent feature should be the quality of service provision.

We need to know how to initiate and maintain quality improvement

4.2.1. **We assume** that it will be necessary to develop knowledge, skills and competencies in the area of adolescent health and to encourage providers within a network to participate in a Quality Improvement (QI) programme. This section is largely concerned with the process of Quality Improvement. Dimensions of quality that apply to all patients have been defined (WHO, 2000): accessibility, equity, acceptability, appropriateness, comprehensiveness, effectiveness, and efficiency. Quality of the health service will be affected by broader health systems strategies, such as strengthening human resources and improving drug supply management. **We assume** that the purpose of quality assurance and quality improvement approaches is to ensure that these dimensions are achieved and maintained for an adolescent health service.

4.2.2. Quality is generally defined in relation to a set of standards based on dimensions such as those listed above. QI is achieved through a process of identifying areas for improvement and actions to bring about desired changes. Training is likely to be an important part of a QI process, but the actions employed will go beyond training to address the desired changes. Initially QI involves self assessment and raising awareness. Available evidence suggests that multifaceted strategies are more likely to lead to eventual change in practice and performance (cf. WHO, 2000). Once initial consciousness is raised, actions such as self learning materials, workshops, guidelines and reminder notices are all ways of stimulating and sustaining improvements in performance (Massoud, 2001).

4.2.3. There are a number of well described QI frameworks – those described by the Quality Assurance project JHPIEGO (a Johns Hopkins University affiliate) and Engender Health, which help facilities to identify gaps in the service and motivate staff to move to address the functioning of processes and systems for improving them. These frameworks have not been rigorously evaluated in different settings or in networks. For adolescents one of the most critical aspects of the service will be its referral and follow-up mechanisms – either to other agencies in a network or to another level of the health system.

4.2.4. QI is usually a managed process. It requires collection and feedback of data and this may not happen without facilitation. It is unclear how staff will be motivated to take on additional tasks. Extra remuneration or the stimulus of accreditation systems may be an incentive but many staff will wish to maintain the status quo. Assessing quality can be threatening to staff because it measures performance and individuals may feel threatened or de-motivated. Comparison between health facilities, through benchmarking or external assessment, is valued by consumers, but often disliked by providers. This underscores the importance of a good change management strategy to ensure that QI is viewed positively.

4.2.5. De-motivation may occur if the Team is not in a position to implement recommended changes. Problems may arise through lack of authorisation to act when facilities do not improve, variation in personal skills and abilities of QI team members, sensitivities about exchange of information and lack of control of resources. **It is assumed** that district level managers and donor organisations may support, and help to fund, quality improvements. If they do not, it is unclear whether a QI process is feasible, and what would be done as an alternative. Hence there are questions about

the technical support required for QI and what might be achieved by less intensive QI strategies.

4.3. EQUIPPING HEALTH WORKERS TO DELIVER THE PACKAGE

Health workers need to be “friendly” but they also need knowledge and skills to deliver the package. **Effectiveness**, appropriateness and **comprehensiveness** are dimensions of quality that relate to standards of clinical practice. Clinical guidelines and treatment algorithms are recognised tools “to assist practitioner decisions about appropriate health care for specific clinical circumstances”.

What we need to know is how to effectively implement preventive, promotive and clinical care guidelines for adolescents in developing countries

4.3.1. The American Medical Association developed: a GAPS users manual, model screening forms (trigger questions designed for use in conjunction with a clinical evaluation), training materials and programmes for providers. These were designed to help providers organise preventive service visits, identify adolescents with biomedical problems, screen for health risk behaviours, develop plans for follow-up, and counsel adolescents and their families. They were found feasible to use and were acceptable to clinicians, adolescents and their families when tested in private practice, in school-based and community health clinics (Gans, 1998). There is also evidence from the application of the IMCI strategy that the use of job aids does result in improvements in the quality of assessment, classification and treatment of patients. **We assume** that the use of protocols to remind providers of steps to take in an adolescent consultation will result in an improvement in the quality of care they deliver.

4.3.2. Methods of Evaluation used to assess GAPs training programmes to enhance health provider skills have been:

- Reviews of policy changes pre and post implementation (visits by assessors, interviews, review of documents, charts, policies, systems changes)
- Clinician surveys (provider description of usual care, training received)
- Adolescent patient surveys (pre and post implementation) of recall on 31 aspects of preventive health
- Chart Reviews (review of patient records after consent)

4.3.3. In a community health care setting (as opposed to medical practitioner’s offices):

- Quicker planning was associated with stronger commitment
- Incorporation into continuous QI improved implementation. Teams required the presence of the medical director or physician leaders as well as administrators.

- Most sites used trigger questions, extended counselling time and enhanced educational materials and referral networks. Most found it difficult to identify resources to deal with mental health, specialised care and nutrition.
- Adolescents reported receiving less counselling and screening services than reported by clinicians or documented in their charts. Nonetheless they did receive significantly more information on a wide range of health issues than previously.
- Clinics which had least experience of adolescent services were more easily able to implement system changes than those with pre-existing special services. The latter were led by mid-level clinicians who did not have leadership roles in their health centres (i.e. adolescent services had been separated off).
- Inappropriate measures decreased (e.g. breast self exams, routine urine analysis)
- Trigger questions combined with clinical interview promoted comprehensive content delivery (even among non-trained physicians), and improved documentation (Klein et al., 2001)

4.3.4. Problems identified with methodologies used to assess implementation were:

- Selection of favourable sites
- Social desirability biases
- No randomised controlled trials
- Studies to assess effectiveness of the brief counselling model did not document whether clinical services were provided
- Chart documentation was good for immunisations and laboratory procedures but not for health promotion
- Validity of self report

4.3.5. Based on taped interviews, adolescent self report of the care received seemed to be the most valid method of determining the content of preventive care (Hedberg et al., 1998; Klein et al., 1999).

4.3.6. Overall there is good evidence that such tools can lead to substantial improvement in quality of clinical practice but the degree of success depends on the methods by which they are developed and disseminated (WHO, 2000).

4.4. MEASURING IMPROVEMENT

Quality is not self evident

We need to know how to assess quality of services

4.4.1. Criteria for meeting standards need to be specified and must be achievable within the constraints of the local setting. Some QI programmes have produced lists of actions generated by health facilities for their local setting (e.g. to maintain privacy, have curtains around examining couches, keep curtains/doors closed during

examination etc). The lists produced by facilities provide a rapid means for health providers to check whether they are meeting the criteria.

4.4.2. Although dimensions of quality are similar for all age groups, for adolescents **the two A's – Accessibility and Acceptability** - are the aspects equated with “adolescent friendliness”. Criteria for adolescent friendliness have been identified in many surveys and are specified in the Global Consultation document (WHO 2001). They appear, and **we assume** them to be, fairly universal. Not all aspects of the two A's are of equal importance to adolescents. This was shown in a well designed survey in Iceland (Bender, 1999) in which adolescents scored the importance of different aspects of the health system. Adolescents of both sexes rated criteria indicative of client-provider attitudes as most important, with the highest importance scores given to listening, friendliness, and respect, followed by understanding of the counsellor, freedom to ask questions and privacy. Confidentiality was ranked slightly lower and was less important to young men than to young women. Criteria for “accessibility” (subdivided into geographic, economic and administrative) scored lower than client – provider attitudes and there were significant differences in rating by sex and residence (urban/rural). These findings suggest that changing provider attitudes should be a first priority. It may be feasible to structure the QI process so as to prioritise areas for improvement rather than giving equal weight to all dimensions of quality.

4.4.3. **It is assumed** that accomplishment of **the three E's – Equity, Effectiveness and Efficiency** – is best determined at the level of the network although it would also be important to determine how different organisations contribute to their attainment. To measure the three E's requires management information systems for generation of routine data on service outcome indicators. These have been only partially defined for adolescent services and are of three main types: a) process measures (e.g. level of participation of organisations within the network, range of services offered, protocols developed etc b) those relating to utilisation, such as who comes, for what, when, how often, to which facility c) intermediate outcome measures which relate to the health outcomes that the overall strategy seeks to improve (e.g. contraceptive/condom uptake, vaccination rates, treatment compliance etc). Targets for some rates (e.g. contraceptive uptake) could be set in order to help identify weak links in the network and to signal a need for action to address underlying problems.

The cost of the QI process should be measured in relation to intermediate indicators and eventually, health outcomes.

4.4.4. It is vitally important to know adolescents' view of the service. A potential measure of the two A's (**Accessibility and Acceptability**) is an adolescent satisfaction rate. There is currently no standardised tool for measuring adolescent satisfaction, and satisfaction is generally considered a complex concept to measure. Apart from the problem of developing a conceptual model which incorporates the relationship between expectations and satisfaction, it is also necessary to specify what are the objects of satisfaction and dissatisfaction. The American literature suggests that there are only a small number of independent dimensions (Ware & Snyder, 1975). Wilkin et al (1992) considered that patient satisfaction can play an important role in health care evaluation, although it is not an easy alternative to measuring final outcomes (i.e. it is not necessarily sufficient for the client to be satisfied if health outcomes are not

improved). Measuring satisfaction requires an adequate theoretical and conceptual framework.

The manual developed by FOCUS (2000) for assessing adolescent views of the service recommended qualitative methods, namely, mystery clients (i.e. disguised investigators) or client exit interviews. Although they have often been used in family planning settings, there are ethical concerns about use of mystery clients because data are not collected as a result of informed consent. It is also a method which assesses an individual provider rather than the service as a whole, hence should be used alongside other methods. The FOCUS client exit interviews have elements of patient satisfaction questionnaires (PSQ) developed in Western settings (e.g. Baker 1990) but the scoring system for the FOCUS interviews is complicated and the validity of the questions has never been established. Satisfaction questionnaires should be simple enough to be collected on a large sample and tested to remove overlapping or non-discriminant questions in the course of their development. The repeatability or usefulness of FOCUS questionnaires for comparison across settings has not been assessed. One recommendation might be to develop a more robust tool.

4.4.5. Young adolescents will be highly dependent on parents/carers to facilitate health visits. The views of parents on the services may also be important to consider as part of the quality improvement process.

Desired outcomes, information needs and research questions related to quality improvement are summarised in Table 2.

Table 2: IMPROVING SKILLS OF HEALTH PROVIDERS		
Desired Outcome	What do we need to know?	Research aims
1 Definition of the roles and responsibilities of health workers	<p>1. Is there a role for specialised health workers to work with adolescents?</p> <p>How would they be selected, trained, monitored and remunerated?</p>	1. To assess the pros and cons of selected or general training of health workers to be sensitive and responsive to adolescents
2 QI process initiated	<p>2. Who will be responsible for managing and motivating the QI process?</p> <p>Will health workers have ability and the time to undertake QI?</p>	2. To assess feasibility and costs of different (and different intensity) QI approaches
3 Health workers effectively delivering the package	3. Are health workers offering appropriate health guidance, screening and treatment?	3. To determine if the QI process ensures that adolescents receive the recommended services
4. Measurement of QI	<p>4. How feasible is regular data collection?</p> <p>How will performance and trends be assessed?</p> <p>How is adolescent and parent satisfaction measured and fed back?</p> <p>Are there critical improvements that strongly determine adolescent uptake?</p>	<p>4 To assess collection and utilisation of data to inform the QI process</p> <p>To develop better methodologies for measuring adolescent satisfaction with different aspects of the service.</p>

C. DEMAND CREATION FOR ADOLESCENT SERVICES

(Sections marked C in Figure 1)

The success of the package depends on its utilisation by a large proportion of the target groups

What we need to know is how service utilisation changes after introduction of an “adolescent friendly” health service and how to interpret these patterns. We need to be able to distinguish those who have never used a service (what are their characteristics and why have they not used services) from those who use a service and are “put off” and do not return. This will require an understanding of help seeking by adolescents in the context of the communities in which they live.

5.1. REACHING ADOLESCENTS WHO NEED THE SERVICE

Most studies focus on clinics attenders

We need to know who is not accessing the service and why.

Adolescents have fewer clinical episodes of illness than children and have much lower rates of contact with the health system. When they do attend, it is often for common illnesses rather than sexual health advice or treatment, or other sensitive problems such as anxiety and insomnia (Lau et al., 2000). One of the main barriers to service utilisation is thought to be health provider attitudes and the absence of an acceptable, accessible and equitable service. **We assume** that, at least in the short term, utilisation rates by the target groups will increase if the quality of service has improved, and to the extent that adolescents feel they “trust” this service.

5.1.1. It is claimed by some, that even when services are provided, adolescents may still not attend. Individual predisposition, ability to negotiate services, and level of need or illness, all affect utilisation. Cultural, social, religious and legal determinants are important in influencing use of reproductive and sexual health services. A major concern is that “at-risk” adolescents may not attend (Ford et al., 1999). Provision of adolescent friendly services could lead to higher utilisation rates for non sexual rather than sexual health complaints. Adolescents who do not attend may still be seeking help elsewhere, and it is important to find out where and why.

5.1.2. It is important to establish the link between quality improvement, adolescent satisfaction rates and different parameters of utilisation. There may be aspects of QI which are critical for certain groups of adolescents. Having defined the adolescent target group, preliminary work will be required to assess current health seeking behaviour (see Section 2.3.5), and to try to identify the quality improvements most likely to enhance utilisation by that target group.

5.1.3. Large, well designed community studies will be required to map trends in coverage and uptake of services. Good qualitative studies should complement these surveys. Many studies of health seeking behaviour are simplistic (where did

adolescents go to seek treatment?) and assume “either/or” decisions’ about utilisation which may not be valid. Health seeking behaviour is a complex notion. Time taken to access a service is one of the more easily measured aspects of health seeking behaviour (Meyer-Weitz et al, 2000).

5.2. PROMOTING EFFECTIVE SERVICE UTILISATION

Well designed packages will identify a desired contact rate with the health service. Regular contact with the health service will be required to offer information and screening at appropriate stages of development. Hence the notion of utilisation needs to be linked to the health outcome improvement to be achieved and not simply refer to number of attendances.

We need to know that the pattern of service utilisation is consistent with health improvement and whether these required levels can be achieved.

5.2.1. In the USA, where a substantial proportion of adolescents make regular visits to physicians, one study found that, although males and females made a similar proportion of visits, young adolescents were the age making the least number of visits to practitioners relative to their population size (Ziv et al., 1999). From mid adolescence there was a dramatic decline in male visits and an increase for females, largely for pregnancy and reproductive health problems. Their findings supported a staged approach to adolescent preventive services, targeted to the needs of three age and sex groups.

5.2.2. Again in the USA, certain sub-groups of adolescents do not establish a usual source of care, even when health insurance and socio-economic factors are controlled for. Having a usual source of care seems to provide a safety net even for high risk groups (Klein et al, 2000). 18% of homeless and runaway youths living in shelters and on the street were found, in one study in the USA, to have had serious health problems within the past year and significant numbers did not have a source of regular health care. Youths who did were more likely to use non-emergency departments for their care. Few perceived shelter clinics, clinics for runaway youths, or free youth clinics to be available to meet their emergency needs. This study was not designed to establish why young people preferred routine or emergency care to these special services.

5.2.3. Monitoring is routine practice for under fives and pregnant women, and reminds health workers to check that they have received preventive care and health advice. Monitoring adolescent visits is important in a network in which adolescents can access services at more than one site. Whether the aim is to mobilise and screen all adolescents or to promote utilisation on a “needs” basis **it is assumed** that monitoring service utilisation will point to patterns in under-utilisation of some groups of adolescents, which, with the results of adolescent satisfaction rates, should inform the QI process. One option is to use a monitoring card to assess utilisation rates.

5.3. INCREASING APPROPRIATE SERVICE UTILISATION

We assume that, even when services are “client centred”, adolescents will need to be informed of their availability, and uptake may be better if there is some stimulus or incentive to attend. Increasing service utilisation is an activity that falls within the scope of the health worker’s role within the community. However, certain types of awareness raising activities – such as media campaigns - lie outside the domain of the health care system. There are a number of approaches for attracting adolescents but there are questions about their long term feasibility and cost.

We need to know whether activities to increase service utilisation are able to increase uptake rates significantly, whether such activities can be time-limited or need to be sustained, and the cost implications of this.

The following represent some of the main approaches for increasing uptake of adolescent friendly services.

5.3.1. Community endorsement: The social environment – family, school, work and religious groups – generates social norms and expectations that may encourage or discourage positive health behaviours. (WHO, 1999) Giving accurate information, promoting discussion of adolescent health problems and getting the support of parents and teachers and other groups is within the remit of health workers and arguably one of their most important tasks. It also provides an avenue to inform adolescents that the service has been improved for their benefit. How effectively health workers communicate these messages, whether they should receive training for this role, and if they have time to do this work are all valid questions (Section 4.1). Health workers, as suggested under section 3.1.5. could also run preventive programmes for parents and older children, and monitor parent satisfaction rates (4.4.5). The success of these different activities on utilisation patterns should be assessed.

5.3.2. Peer outreach / peer involvement in clinics: There is evidence that peers are effective in communicating health messages, they can influence community norms and values, and their involvement is likely to attract adolescents. It must be noted that the feasibility of sustaining peer programmes outside the NGO setting is in question. Peer programmes involve a continuous process of recruitment and loss (since adolescents become adults), as well as supervision and organisation by health staff. Remuneration often becomes an issue and in the South African NAFCI project, the cost of peer motivators is currently borne by donor agencies and the Ministry of Youth (A Pettifor, personal communication). The quality and accuracy of information provided by peers is another area of concern. Adolescent involvement in AFHS is considered essential by some groups, hence detailed studies are required that establish the true cost and management implications of peer programmes.

5.3.3. Links to schools: School nurses who inform students about services, and health workers who talk to classes and organise visits to the health centre, may allay fears and legitimise health seeking. These activities require time and skills but may be considered part of the adolescent health worker’s role (section 4.1.) The cost, time and value of such activities need to be adequately assessed.

5.3.4. Media Promotion, including Social Marketing. There are many ways in which the media can be used to inform young people and promote products. There is most experience of social marketing of condoms, but other products can be marketed, although this requires investment. Social marketing of Voluntary Counselling and Testing (VCT) for HIV infection was tested in 6 US cities. It involved national and local media campaigns, hotlines, setting a web site, TV coverage and free services. It helped build partnerships between agencies which was a positive outcome, but had limited impact on the numbers of adolescents going for testing, or testing positive (Futterman et al, 2001). Many more young people phoned the Hotline for information than went for testing, and the prevention impact of providing information was difficult to measure. NAFCI in South Africa relies on media campaigns to sensitise adults and adolescents to sexual health issues. Such questions as should media campaigns be one-off or periodic, and for how long do they need to be sustained to have impact, need to be addressed by groups trained in media studies.

5.3.5. Incentives: In certain situations, incentives might be used to promote preventive programmes involving several visits. Incentives could be provided by the government, in terms of grants, bursaries or scholarship etc, but evidence would be required that such subsidies were attractive to governments, feasible to operate and their cost offset by health gains. Alternatively, the private sector may be willing to provide incentives if association with the scheme is perceived as having a market value. Schemes which make health more “fun” (e.g. having the chance to win free tickets to an event) are often popular with adolescents. Another form of incentive is to offer treatment for health problems that concern adolescents but not policy makers e.g. menstrual health (Brabin & Barr, 1999) or acne.

5.3.5. It is possible that a mix of the above activities is required, and that they can be used at different time points to stimulate and maintain adolescent demand.

Desired outcomes, information needs and some research questions related to improving adolescent uptake of services are summarised in Table 3.

Table 3: INCREASING UPTAKE OF THE PACKAGE		
Desired Outcomes	What do we need to know	Research Aims
1. Reaching adolescents who need the service	<p>1. Does provision of the package lead to uptake by the target group(s)?</p> <p>Are there some adolescents who never attend?</p> <p>What are adolescents' explanations for utilisation patterns?</p>	<p>1. To assess coverage and uptake of the package in populations exposed to different approaches to QI.</p>
2. Promoting effective service utilisation	<p>2. Is it feasible to expect adolescents to make return visits to access specific components?</p> <p>How will health workers monitor an adolescent's contacts?</p>	<p>2. To determine desired contact rates and to assess completion rates of the package in different age, sex and sub groups</p> <p>To assess the acceptability and usefulness of monitoring (e.g. an adolescent health card)</p>
3. Optimising service utilisation	<p>3. Which health worker activities have most impact on utilisation rates?</p> <p>Are peer and media programmes necessary ? affordable?</p> <p>What type, frequency and intensity of demand creation activities is required?</p>	<p>3. To compare the strengths and weaknesses of different approaches to increasing and maintaining demand for the health package</p>

D. IMPROVED ADOLESCENT HEALTH OUTCOMES

(Sections marked D in Figure 1)

6.1. DEMONSTRATING HEALTH BENEFITS

Adolescent health outcomes should reflect not only reduction in disease, but prevention of morbidity and improved health.

We need to know how different components of the package improve health

6.1.1. Some of the potential benefits of a health package are difficult to demonstrate and are under-valued, particularly psycho-social aspects, such as improved determination and confidence to resist pressure from peers to experiment with tobacco use. Demonstrating that health promotion translates into the adoption and/or maintenance of safe behaviour (as opposed to acquisition of knowledge alone) is also challenging.

6.1.2. It is hypothesised that a well utilised, adolescent-friendly health service will lead to improved health and that these benefits can be demonstrated. In some countries most interest will be in evidence for a reduction in the burden of infection and morbidity (and in some cases, even mortality). Other countries may look for promotive and preventive health benefits.

6.1.3. This evidence does not yet exist, and research will be required, in which delivery of the package is implemented within population-based studies, large enough to demonstrate impact. **We assume** that WHO and other organisations will play an important role in supporting the generation of this evidence base. Initially evidence may be sought for the effectiveness of health interventions addressing: sexually transmitted infections such as chlamydia and HIV, endemic diseases such as malaria or helminthic infections, or on reproductive health outcomes such as pregnancy outcomes and morbidity indices in adolescent mothers and their babies. In preventive and promotive programmes, evidence will be required of ill health avoided through behavioural change and adoption of healthy lifestyles. Eventually this should lead to the availability of a range of evidenced-based health interventions that one could draw upon to develop tailor-made packages. **It is ESSENTIAL that evaluations are built into programmes at the point of introduction, and that adequate baseline data are collected to facilitate this.** These evaluations, while aiming to provide evidence of impact on direct outcomes, should also monitor intermediate outcomes i.e. effects that are expected as part of the pathway to a direct health impact. The package component may consist of several interventions, and intermediate indicators for each of these should be selected so that causal links can eventually be suggested. One of the most critical questions is the added benefit of creating an AFHS as the mode of delivery for health interventions that are judged to be effective.

6.1.4. Concerns have been expressed about the cost and complexity of the type of studies needed to demonstrate health improvement. Measuring impact using biomedical outcomes indicators, such as HIV incidence, is expensive. However, if the

purpose of an intervention is to reduce HIV, then HIV incidence is the most appropriate indicator. Proxy indicators for HIV/STI studies, such as knowledge and attitudes, sexual behaviour or reported STI rates are acknowledged to be poor outcome indicators (Aral & Peterman 1996; Stephenson 1999).

6.1.5. Direct impact is more likely to be observed if evaluation is conducted when a health intervention has been in operation for some time. In the short term measurement of utilisation and impact may fall short of goals because it will take time to remove barriers to service provision and barriers that discourage adolescents from making use of the new services. Similarly provision of AFHS can only be part of a multi-faceted strategy to bring about a fall in infection or disease rates. These arguments are unlikely to impress policy makers and in reality, if AFHS do not make any immediate impact on at least some important public health problems, it will be difficult to argue for widespread implementation. Selection of intermediate and long term indicators for epidemiological studies is of critical importance, and longer-term surveillance could be instigated in key sites to monitor trends.

6.1.6. Most of these key studies will be done in developing countries with high disease rates. In many situations, AFHS will be introduced gradually and this provides the potential to build up monitoring systems in intervention and comparison sites (i.e. areas in which this approach has not yet been introduced). In some developed countries, AFHS have quite a narrow focus on prevention of unwanted sexual health outcomes and these countries have not prospectively evaluated the impact of AFHS (Santow & Bracher, 1999). Most can provide only indirect evidence of the critical factors leading to reduction of unwanted pregnancy and/or low rates of sexually transmitted infections. The GAPS recommendations in the USA, and the rate of publication of articles on assessment, give rise to expectations of evaluations to assess impact of the programme on adolescent psycho-social, nutritional, developmental and risk-taking outcomes. If such evaluations do emerge, there will still be questions about their applicability to developing countries.

6.2. BALANCING RIGOUR AND ACCEPTABILITY

One of the problems of research studies, is that data collection can interfere with the acceptability of the service.

We need to find ways to minimise the risks of reducing acceptability while being rigorous in the research approach

6.2.1. The concept of the need to balance rigour and acceptability was developed by Mitchell et al (2002) in regard to trials to assess HIV interventions. They asked whether it is possible, in a rural African setting, to implement a scientifically rigorous evaluation without compromising acceptability of the trial to the community. They were not addressing the issue specifically in adolescents. One of the key questions was the acceptability of taking blood, and there was confusion among participants as to whether blood sampling was the intervention or the evaluation. They concluded that as the trial progressed and understanding increased, the sero-survey gained

acceptability and was viewed positively. Earlier pilot studies found (perhaps surprisingly) that neither urine nor saliva was more acceptable than blood.

6.2.2. An important issue is consent, which is more problematic in adolescence, as there may be no established legal age of consent for medical treatment. Also, young adolescents must be judged competent to give consent if parental consent is not being sought. These issues will have to be addressed to the satisfaction of the relevant ethical committees but in general, permission of the community and individual consent will be required.

6.2.3. It is possible to conduct sensitive surveys amongst adolescents (Barr et al, 1998) but it does require time and well trained field staff. As far as possible, rigorous studies should be undertaken to assess health outcomes, and very explicit questions should be framed. A range of methodologies should be considered in each situation and the most appropriate method selected. Examples of study designs could include: before and after studies (prospective research studies or retrospective audits; studies of secular change); experimental studies involving groups or individuals; factorial designs; incomplete block designs; step wedge designs; large and simple trials. Studies in which individuals are randomised are generally not feasible in community settings. Cohort, rather than repeat cross-sectional studies, might be used when age and maturity stage at the time of intervention could affect the outcome. All quantitative studies are improved when there is qualitative information available to help interpret the resulting outcomes. Randomised controlled trials usually answer only one or two questions and need to be complemented with other types of study which interpret (give meaning to) observed outcomes. Even a negative health outcome might provide useful information if qualitative studies can demonstrate why the programme failed (i.e. in relation to how the service was delivered).

6.3. COST OF DELIVERING AFHS

Ultimately, countries must be able to afford an AFHS.

We need to know what it costs to achieve adolescent health benefits

6.3.1. Policy makers will want to know the cost of providing AFHS – that is, the marginal costs to the existing health system. A main concern is likely to be service capacity, as rapid expansion could be problematic. Costs will be highest when the service is first set up. This should level off, but sustainability will become an issue if maintenance of the service requires constant inputs to attract adolescents, to retrain staff or maintain quality. This underscores the importance of establishing AFHS as a routine service rather than a special programme. Staff trained to be adolescent-friendly may expect a higher level of remuneration and this will constitute a recurrent cost.

6.3.2. In some countries adolescents will have to pay for health visits. The cost to adolescents will need to be measured, particularly when adolescents are required to make repeat visits, or are charged for screening tests. This factor alone could lead to under utilisation and failure to achieve health impact.

6.3.3. The cost of NOT delivering AFHS also needs to be demonstrated. This is perhaps best achieved through models which predict disease burdens and long term health and social costs if there is no involvement in adolescent health. Some consideration needs to be given to the type of data that should be collected in order to generate such models. Cost-benefit studies would not be recommended unless eventually required by policy making bodies, such as the World Bank.

Desired outcomes, information needs and research questions are summarised in Table 4.

Table 4: Measuring Health Outcomes		
Desired Outcomes	What Do We Need To Know	Research Aims
1. Improved Adolescent Health	<p>1. Are there health interventions for which effectiveness can be rapidly demonstrated?</p> <p>What are the appropriate intermediate and long term outcome indicators?</p> <p>Does an AFHS result in better outcomes than delivering interventions through existing channels?</p> <p>Review of potential interventions as a basis for piloting health interventions for which the evidence base is weak</p>	<p>1. To test the effect of introducing health interventions addressing STI/HIV, TB, malaria and pregnancy in reducing the burden of morbidity and disease</p> <p>To monitor intermediate and long term indicators in different groups of adolescents in selected sites</p> <p>**To conduct efficacy studies that lead to an improved evidence-base for untested health interventions, such as mental health and violence, and a preventive package for young adolescents</p>
2. Justification of costs	<p>2. What are the marginal costs of delivering the package (i.e. rapid enhancement of services) and will cost recovery be essential?</p> <p>Does QI for adolescents benefit all patients or only adolescents?</p> <p>What are the costs of not reaching adolescents with health services?</p>	<p>2. To estimate the cost of delivery through AFHS compared to delivery through existing services in relation to health outcomes and principles of equity</p> <p>** This is not an operations research question but is essential knowledge for constructing tailor made packages containing proven health interventions</p>

Annex 1

Consensus statements emanating from the Global Consultation on Adolescent Friendly Health Services (WHO, 2001)

1. Promoting adolescent health and development requires a shared vision with complementary actions by different players; which are aimed at fulfilling their rights and address their special needs.
2. All adolescents should be able to access promotive, preventive and curative health services relevant to their stage of maturation and life circumstances.
3. For a variety of reasons, adolescents in many places are unable to obtain the health services they need.
4. Adolescents have many ideas about how to make services user-friendly - generally they stress the ethos more than the technical quality of the services.
5. A user-friendly health service does not necessarily ensure service utilisation by adolescents.
6. There are a number of approaches for increasing service utilisation by adolescents (in places where a user-friendly health service exists).
7. To complement and extend coverage of government-run health facilities for adolescents, other channels could be made available. Adolescents are much more likely to obtain the services they need if existing service providers are networked.
8. It would be helpful to define the elements of a core package, and how it could be developed and provided in different settings/contexts
9. Health care providers require technical competence relevant to adolescent health and development.
10. Quality assurance/improvement methods, which empower health care providers to deliver client-centred care, should be applied to health services for adolescents.

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